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MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50

1-Phase Prewired Split Phase Buck/Boost Step-Up Transformer - 208V Primary - 120/240V Secondary - 44.07 Amps - 50/60Hz - NEMA 14-50 Plug & Receptacle

Product ID: 284417

Please see last page for supporting documentation for this product(certificates, CAD files & drawings, IES files, wiring diagrams, etc).



Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 Prewired Buck and Boost Step-Up Transformer

Transformer Type: Buck/Boost Step-Up Transformer
Transformer Configuration: Boost
Phase: Split Phase
Frequency: 50/60 Hz
Input Voltage: 208 V AC
Primary Amps: 50 A
Primary Configuration: Two Winding
kVA: 11.06
Output Voltage: 120/240 V AC
Secondary Amps: 44.07 A @ 120/240 V
Voltage Difference %: -
Secondary Configuration: Two Winding
Winding Material: Aluminum
Wiring: Prewired with (2) 3' 6/4 SOOW Whips on both Primary and Secondary w/ Cord Caps on both
Cord Caps: NEMA 14-50P Straight Blade Plug on Primary Side; NEMA 14-50C Straight Blade Connector on Secondary Side
Knockouts: Side and Rear
Primary Termination: Front Access Copper Tabs or Lead Wires
Secondary Termination: Front Access Copper Tabs or Lead Wires
Cooling: Air / Dry Type
Insulation: 130°C
Temperature Rise: 80°C
Sound Level: 36 dB

Ratings

NRTL Listed for United States
CSA Certified for Canada
NEMA 3R Indoor/Outdoor Enclosure
Meets or Exceeds NEMA ST-20 Standards
Buck and Boost Step-Up Transformer

Enclosure Rating: NEMA 3R
Encapsulation: Silica Sand, Resin Compounds
Enclosure Material: Steel
Finish: ANSI 61 Grey
Mounting: Wall Mount via Mounting Tabs
Dimensions: 11.75"-H x 14.12"-W x 6.25"-D
Weight: 82 lb

Special Orders - Special Requirements
Contact us for special requirements
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The MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 Prewired Split Phase Step-Up Buck and Boost Transformer from Larson Electronics is powerful, reliable, and designed with the environment in mind. Suitable for both indoor and outdoor applications, the MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 provides increased reliability, higher efficiency, protection against critical equipment failures and an extra level of protection by isolating the power source from the connected device. The lower operating costs, lower heat emissions, and lower cost of ownership make this transformer ideal for a wide range of applications and businesses. The MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 is a prewired transformer for customer installation and is equipped with 3' of 6/4 SOOW cable on each side connected to the transformer with a 50 amp 250V NEMA 14-50P straight blade plug on the primary side and a 50 amp 250V NEMA 14-50C receptacle on the secondary side.
PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO POWER DISTRIBUTION PANELS, TRANSFORMERS, OR SUBSTATIONS*
Transformer Features: The MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 buck and boost transformer is a split phase unit with a 11.06 kVA rating and a primary voltage of 208 V split phase using a maximum of 50 amps on the primary side. This step-up transformer has a split phase secondary voltage of 120/240 V that generates a neutral and provides up to 44.07 amps at 120/240 V on the secondary side. Featuring robust construction, this unit's cores are manufactured with non-aging, cold-rolled silicon steel laminations using state of the art technology.
This unit boasts a low cost of ownership and is highly energy efficient. Lower heat emissions mean less cooling is needed as well. The NEMA 3R painted steel enclosure makes the unit suitable for both indoor and outdoor applications, and this step-up transformer can be wall mounted. The MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 features a 130°C insulation with a 80°C temperature rise.
Construction: The aluminum winding in the MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 are formed from high quality aluminum wire help to improve performance. The close tolerances used during manufacturing also eliminates burrs which hinder performance. Each core is specially coated to prevent the ingress of moisture and are electrically balanced to minimize axial forces during short circuit situations. Buck and boost transformers are designed to maximize the performance and life of electrical equipment. The MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 is encapsulated in silica sand and resin, and cased in a NEMA 3R steel enclosure. NEMA 4, NEMA 4X, and NEMA 12 enclosures are available upon request.



Click Image to Enlarge

Benefits: The MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 buck/boost step-up transformer offers many benefits to the consumer. Buck/boost transformers pass the majority of the load voltage directly through the transformer, only transforming a small percentage of the load. Due to this technology, a smaller and quieter step-up transformer is manufactured and uses

less materials. This provides owners with significant energy savings as well as offering environmental benefits.
Higher efficiency not only extends the life of the transformer, but also turn into cost savings for owners in the form of lower energy bills and decreased cost of ownership. Installation and maintenance costs are reduced due to the smaller form factor, and less overall space requirements are decreased. In addition, these step-up transformers operate quieter than a standard autotransformer of the same capacity.
Mounting: Integrated wall mounting brackets make installation fast and easy. Because of the smaller overall footprint, heavy machinery is rarely needed for mounting and installation.
Wiring/Installation: The MPD-MT-BBT-208V-120.240V-2P-50A-2X3FT-14.50 is equipped with 3' 6/4 SOOW whips on the primary and secondary sides. The primary side whip is equipped with a 50 amp 250V NEMA 14-50P straight blade plug and the secondary side whip is equipped with a 50 amp 250V NEMA 14-50C receptacle. This transformer makes installation simple. Operators connect them to the corresponding current. For example, the 208 V whip gets connected to 208 V current.
Applications: Air conditioners, lighting systems, heating elements, motor applications and other applications that that require the ability to power loads that differ from the available line voltage.
Limitations: While there are many benefits to a buck/boost transformer, there are some limitations to consider. This transformer will only transformer voltage, it will not convert phases, it will not create even legs between line 1 and line 2 (L1 and L2 WILL be UNEVEN), has no circuit isolation, and does not create a neutral for applications where a neutral is not already present. If any of these limitations apply to you, you will need a standard transformer. Please see below link for our standard line of industrial transformers or our line of phase converters.
Note on Phases: This buck/boost transformer is a single phase step-up transformers. For three phase transformers, click on the following links:
Three Phase Delta Buck/Boost Transformers
Three Phase Wye Buck/Boost Transformers
Larson Electronics is a manufacturer and as such can build stationary and portable transformer systems to your specifications. Although we carry several models of power distribution transformer systems, we can deliver custom ordered units almost as quickly as our prebuilt units. If this model does not meet your needs, please contact us at 1-800-369-6671 or sales@larsonelectronics.com to discuss your specific requirements.

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Frequently Asked Questions (FAQ)

Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **Canadian CEC Certificate (Commonly referred to as CSA Certificate)**
- **CE Certificate**
- **Certificate 1, Misc**
- **MSDS (Material Safety Data Sheet**
- **Operations Manual**
- **USA NEC Certificate (Commonly referred to as UL Certificate)**
- **Wiring Diagram**
- **HigResPic1**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**